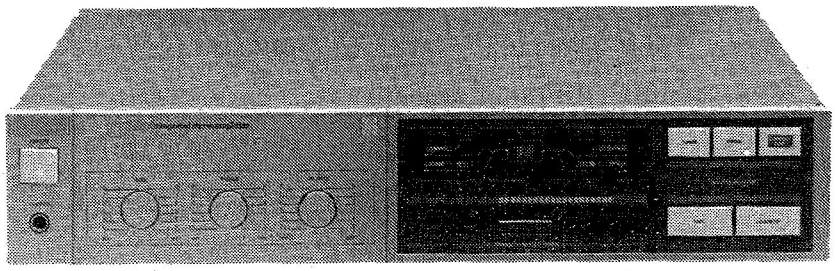
Technischer Kundendienst

0035618



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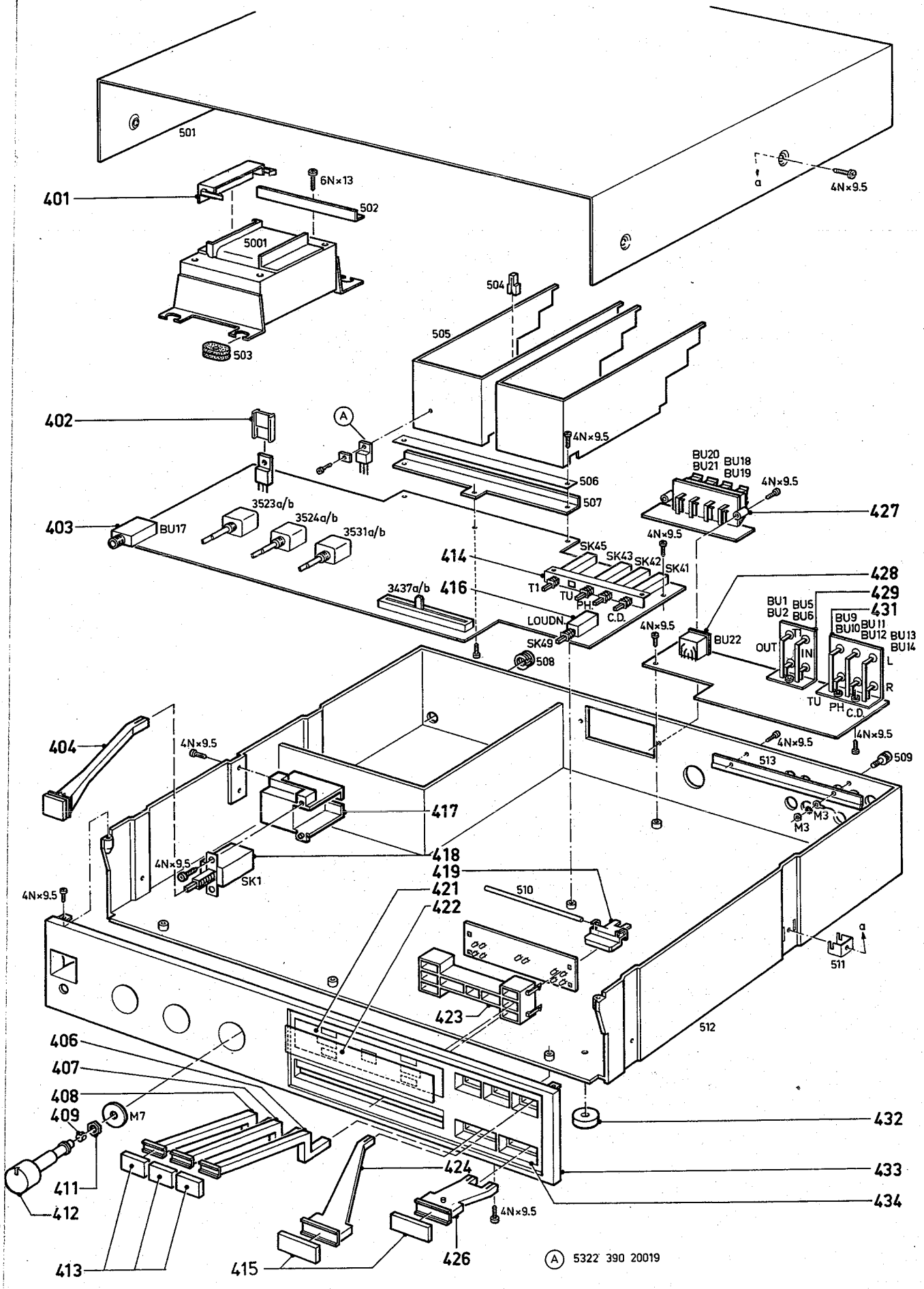
PRIVILEG	V 7455
LIEFERANTEN-NR.	291787
PREIS	299.00
KATALOG	845
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

Nachdruck nicht gestattet
Änderungen vorbehalten

Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten!


501
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6N×13
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5001
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505
4N×9.5
506
507
402
403
BU17
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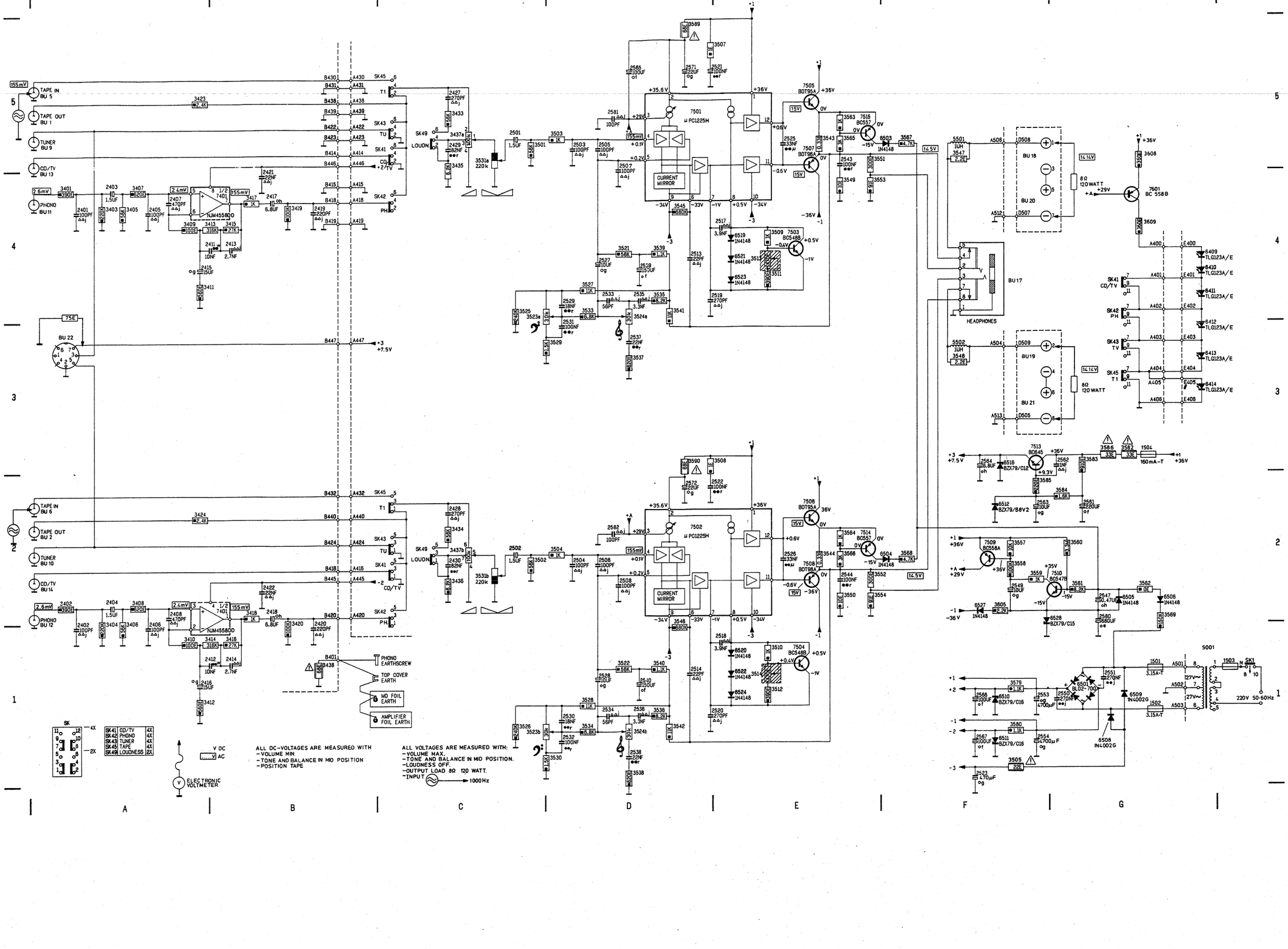
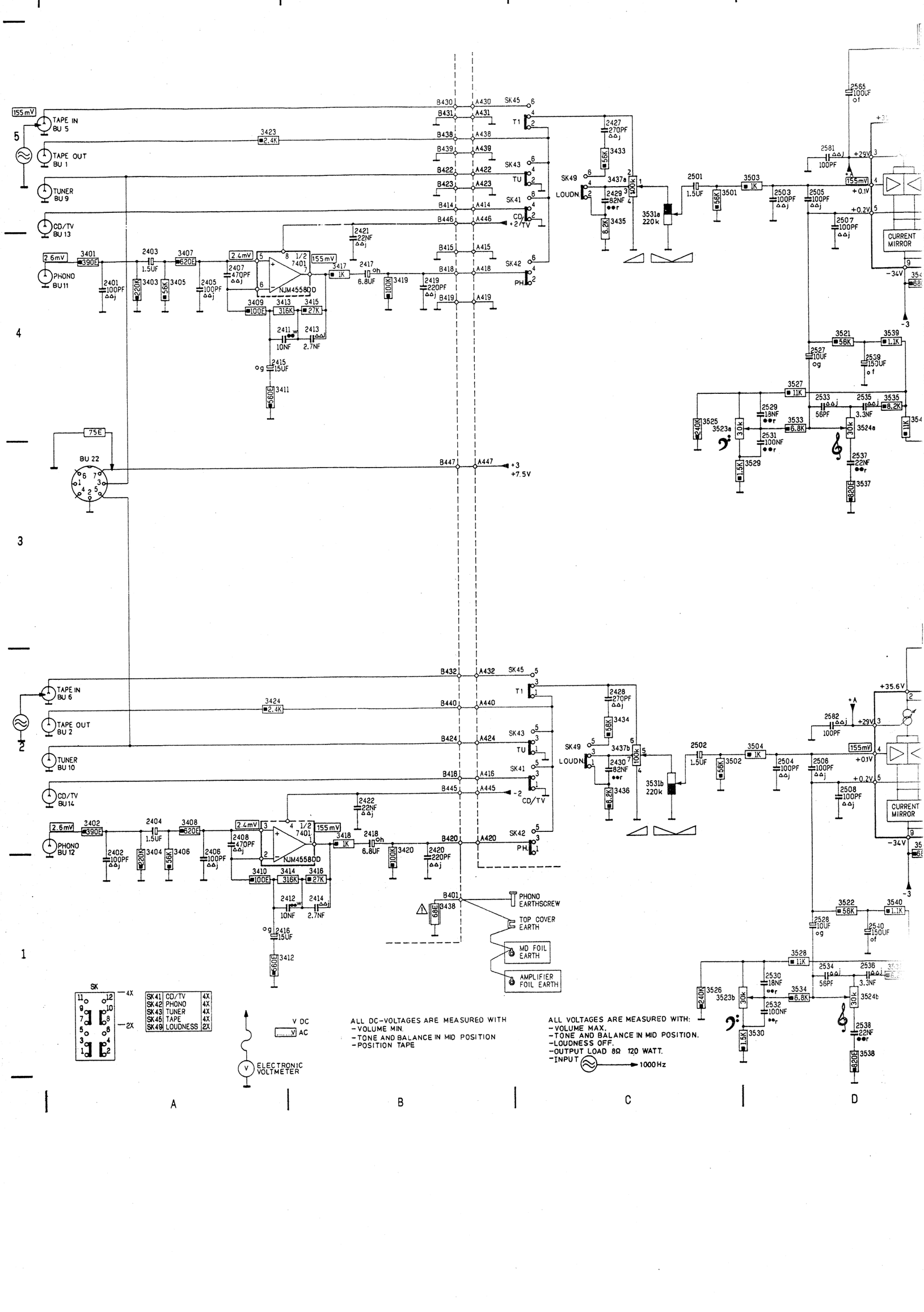
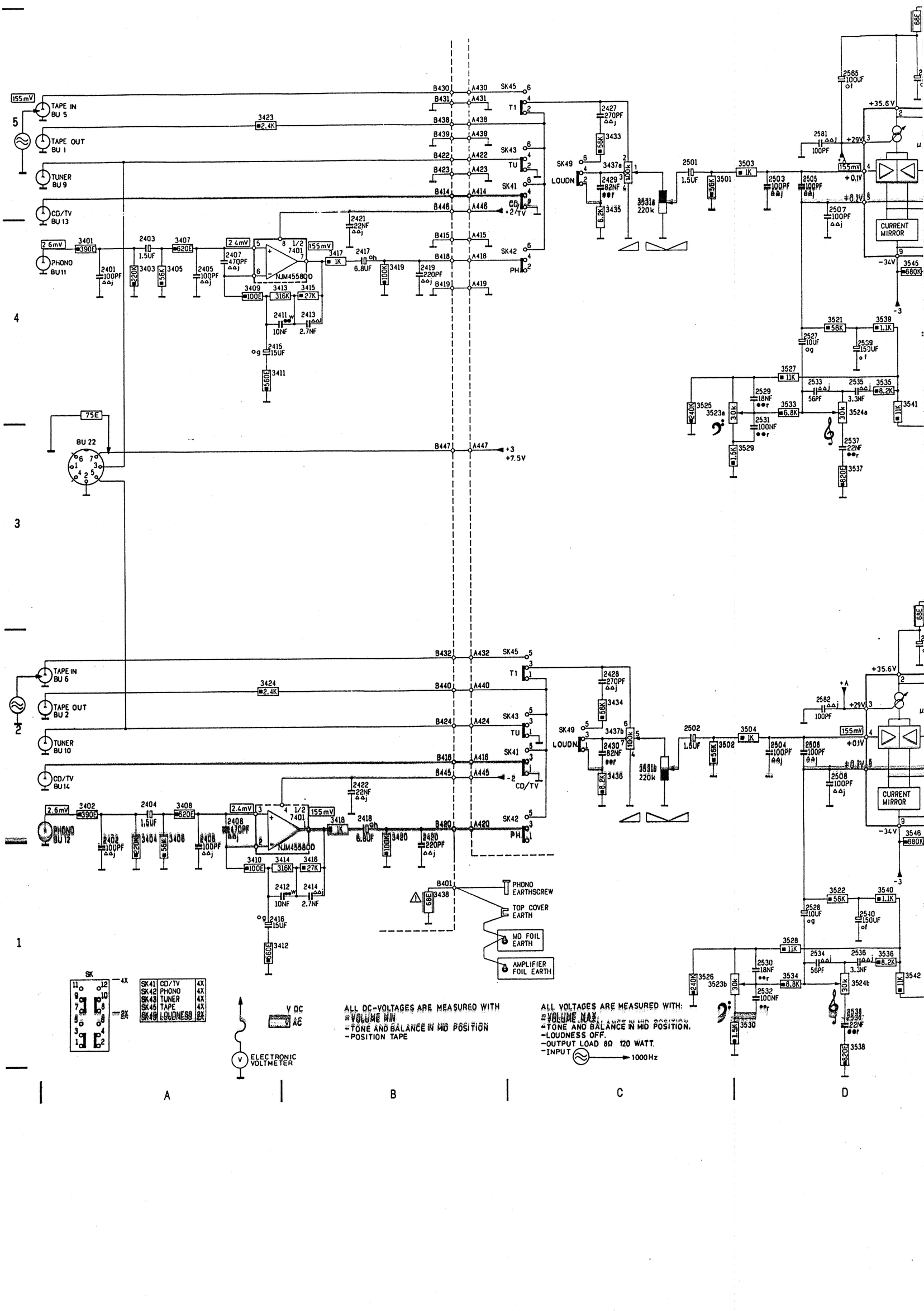
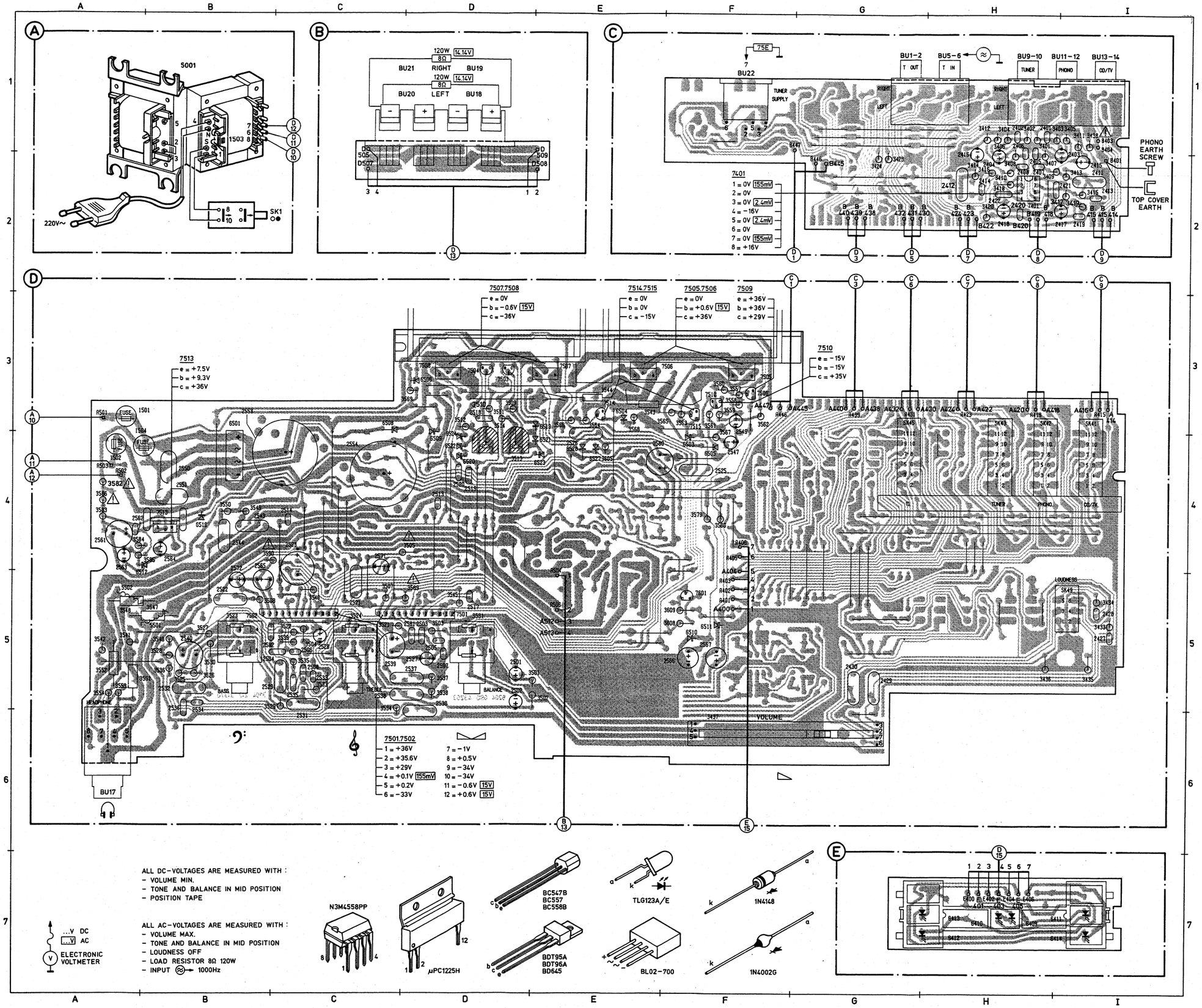
3524a/b
3531a/b
414
416
3437a/b
SK45
SK43
SK42
SK41
T1
TU
PH
C.D.
LOUDN.
SK49
508
BU20
BU21
BU18
BU19
427
428
429
431
BU22
BU1
BU2
BU5
BU6
BU9
BU10
BU11
BU12
BU13
BU14
OUT
IN
L
R
404
417
418
419
421
422
SK1
510
511
512
513
509
M3
423
406
407
408
409
M7
411
412
413
415
424
426
432
433
434
A
5322 390 20019


TAPE IN BU 5
TAPE OUT BU 1
TUNER BU 9
CD/TV BU 13
PHONO BU 11
TAPE IN BU 6
TAPE OUT BU 2
TUNER BU 10
CD/TV BU 14
PHONO BU 12
BU 22
75E
LOUDN
CURRENT MIRROR
μPC1225H
7501
7502
NJM4558DD
BU 17
HEADPHONES
BU 18
BU 20
BU 19
BU 21
8Ω 120 WATT
7601 BC 558 B
6409 TLG123A/E
6410 TLG123A/E
6411 TLG123A/E
6412 TLG123A/E
6413 TLG123A/E
6414 TLG123A/E
PHONO EARTHSCREW
TOP COVER EARTH
MD FOIL EARTH
AMPLIFIER FOIL EARTH
SK
SK41 CD/TV 4X
SK42 PHONO 4X
SK43 TUNER 4X
SK45 TAPE 4X
SK49 LOUDNESS 2X
V DC
V AC
ELECTRONIC VOLTMETER
ALL DC-VOLTAGES ARE MEASURED WITH
-VOLUME MIN.
-TONE AND BALANCE IN MID POSITION
-POSITION TAPE
ALL VOLTAGES ARE MEASURED WITH:
-VOLUME MAX.
-TONE AND BALANCE IN MID POSITION.
-LOUDNESS OFF.
-OUTPUT LOAD 8Ω 120 WATT.
-INPUT 1000Hz
220V 50-60Hz
A B C D E F G


A
B
C
D
155mV
TAPE IN BU 5
TAPE OUT BU 1
TUNER BU 9
CD/TV BU 13
2.6mV
PHONO BU11
3401 390E
2401 100PF
2403 1.5UF
3403 220K
3405 56K
3407 620E
2405 100PF
2.4mV
2407 470PF
NJM4558DD
155mV
3417 1K
2417 0h
6.8UF
3419 100K
2419 220PF
2421 22NF
3409 100E
3413 316K
3415 27K
2411 10NF
2413 2.7NF
2415 15UF
3411 560E
75E
BU 22
B430 A430 SK45
B431 A431 T1
3423 2.4K
B438 A438
B439 A439
B422 A422 SK43
TU
B423 A423
B414 A414 SK41
B446 A446 CD/TV
B415 A415
B418 A418 SK42
PH
B419 A419
B447 A447 +3 +7.5V
2427 270PF
3433 56K
SK49 LOUDN
3437a 100K
2429 82NF
3435 6.2K
3531a 220k
2501 1.5UF
3501 56K
3503 1K
2503 100PF
2505 100PF
2507 100PF
2581 100PF
2585 100UF
+29V
155mV
+0.1V
+0.2V
CURRENT MIRROR
-34V
3521 56K
3539 1.1K
2527 10UF
2539 150UF
3527 11K
2533 56PF
2535 3.3NF
3535 8.2K
3525 240K
3523a
30k
2529 18NF
3533 6.8K
2531 100NF
3529 1.5K
2537 22NF
3537 820E
3524a
11K
4
3
2
1
SK
SK41 CD/TV 4X
SK42 PHONO 4X
SK43 TUNER 4X
SK45 TAPE 4X
SK49 LOUDNESS 2X
4X
2X
V DC
V AC
ELECTRONIC VOLTMETER
TAPE IN BU 6
TAPE OUT BU 2
TUNER BU 10
CD/TV BU14
2.6mV
PHONO BU12
3402 390E
2402 100PF
2404 1.5UF
3404 220K
3406 56K
3408 620E
2406 100PF
2.4mV
2408 470PF
NJM4558DD
155mV
3418 1K
2418 0h
6.8UF
3420 100K
2420 220PF
2422 22NF
3410 100E
3414 316K
3416 27K
2412 10NF
2414 2.7NF
2416 15UF
3412 560E
B432 A432 SK45
B440 A440
3424 2.4K
B424 A424 SK43
TU
B416 A416 SK41
B445 A445 CD/TV
B420 A420 SK42
PH
B401
B438 68E
PHONO EARTHSCREW
TOP COVER EARTH
MD FOIL EARTH
AMPLIFIER FOIL EARTH
2428 270PF
3434 56K
SK49 LOUDN
3437b 100k
2430 82NF
3436 6.2K
3531b 220k
2502 1.5UF
3502 56K
3504 1K
2504 100PF
2506 100PF
2508 100PF
2582 100PF
+35.6V
+29V
155mV
+0.1V
+0.2V
CURRENT MIRROR
-34V
3522 56K
3540 1.1K
2528 10UF
2540 150UF
3528 11K
2534 56PF
2536 3.3NF
3526 240K
3523b
30k
2530 18NF
3534 6.8K
2532 100NF
3530 1.5K
2538 22NF
3538 820E
3524b
30k
ALL DC-VOLTAGES ARE MEASURED WITH
- VOLUME MIN.
- TONE AND BALANCE IN MID POSITION
- POSITION TAPE
ALL VOLTAGES ARE MEASURED WITH:
- VOLUME MAX.
- TONE AND BALANCE IN MID POSITION.
- LOUDNESS OFF.
- OUTPUT LOAD 8Ω 120 WATT.
- INPUT 1000Hz


A
B
C
D
155mV
TAPE IN BU 5
TAPE OUT BU 1
TUNER BU 9
CD/TV BU 13
2.6mV
PHONO BU11
3401 390E
2401 100PF
2403 1.5UF
3403 220K
3405 56K
3407 620E
2405 100PF
2.4mV
2407 470PF
NJM4558QD
155mV
3417 1K
2417 6.8UF
2421 22NF
3419 100K
2419 220PF
3409 100E
3413 316K
3415 27K
2411 10NF
2413 2.7NF
2415 15UF
3411 560E
75E
BU 22
B430 A430 SK45
B431 A431 T1
B438 A438
B439 A439
B422 A422 SK43
B423 A423 TU
B414 A414 SK41
B446 A446 CD/TV +2
B415 A415
B418 A418 SK42
B419 A419 PH
B447 A447 +3 +7.5V
SK49 LOUDN
2427 270PF
3433 56K
3437a
2429 82NF
3435 6.2K
3531a 220k
2501 1.5UF
3501 56K
3503 1K
2503 100PF
2505 100PF
2507 100PF
CURRENT MIRROR
+35.6V
2581 100PF
+29V
+0.1V
-34V
3545 680K
2565 100UF
3521 56K
3539 1.1K
2527 10UF
2539 150UF
3527 11K
2533
2535
3535 8.2K
56PF
3.3NF
2529 18NF
2531 100NF
3529 1.5K
3533 6.8K
3525 240K
3523a
3523b 30K
3524a
3524b
3537 820E
3541 1K
TAPE IN BU 6
TAPE OUT BU 2
TUNER BU 10
CD/TV BU 14
2.6mV
PHONO BU 12
3402 390E
2402 100PF
2404 1.6UF
3404 220K
3406 56K
3408 620E
2406 100PF
2.4mV
2408 470PF
NJM4558QD
155mV
3418 1K
2418 6.8UF
2422 22NF
3420 100K
2420 220PF
3410 100E
3414 316K
3416 27K
2412 10NF
2414 2.7NF
2416 15UF
3412 560E
B432 A432 SK45
B440 A440
B424 A424 SK43 TU
B416 A416 SK41
B445 A445 -2 CD/TV
B420 A420 SK42 PH
B401 3438 68E
PHONO EARTHSCREW
TOP COVER EARTH
MD FOIL EARTH
AMPLIFIER FOIL EARTH
SK49 LOUDN
2428 270PF
3434 56K
3437b
2430 82NF
3436 8.2K
3531b 220k
2502 1.5UF
3502 56K
3504 1K
2504 100PF
2506 100PF
2508 100PF
CURRENT MIRROR
+35.6V
2582 100PF
+29V
+0.1V
-34V
3546 680K
2528 10UF
2540 150UF
3522 56K
3540 1.1K
3528 11K
2534
2536
3536 8.2K
56PF
3.3NF
2530 18NF
2532 100NF
3530 1.5K
3534 6.8K
3526 240K
3523b 30K
3524b
3538 820E
3542 1K
SK
SK41 CD/TV 4X
SK42 PHONO 4X
SK43 TUNER 4X
SK45 TAPE 4X
SK49 LOUDNESS 2X
V DC
V AC
ELECTRONIC VOLTMETER
ALL DC-VOLTAGES ARE MEASURED WITH
-VOLUME MIN
-TONE AND BALANCE IN MID POSITION
-POSITION TAPE
ALL VOLTAGES ARE MEASURED WITH:
-VOLUME MAX.
-TONE AND BALANCE IN MID POSITION.
-LOUDNESS OFF.
-OUTPUT LOAD 8Ω 120 WATT.
-INPUT 1000Hz


A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7
5001
1503
SK1
220V~
120W 14.14V 8Ω
BU21 RIGHT BU19
120W 14.14V 8Ω
BU20 LEFT BU18
D505 D507 D508 D509
75E
BU22
TUNER SUPPLY
BU1-2 T OUT
BU5-6 T IN
BU9-10 TUNER
BU11-12 PHONO
BU13-14 CD/TV
PHONO EARTH SCREW
TOP COVER EARTH
7401
1 = 0V 155mV
2 = 0V
3 = 0V 2.4mV
4 = −16V
5 = 0V 2.4mV
6 = 0V
7 = 0V 155mV
8 = +16V
7507.7508
e = 0V
b = −0.6V 15V
c = −36V
7514.7515
e = 0V
b = 0V
c = −15V
7505.7506
e = 0V
b = +0.6V 15V
c = +36V
7509
e = +36V
b = +36V
c = +29V
7510
e = −15V
b = −15V
c = +35V
7513
e = +7.5V
b = +9.3V
c = +36V
FUSE 1501
FUSE 1504
7501.7502
1 = +36V
2 = +35.6V
3 = +29V
4 = +0.1V 155mV
5 = +0.2V
6 = −33V
7 = −1V
8 = +0.5V
9 = −34V
10 = −34V
11 = −0.6V 15V
12 = +0.6V 15V
BU17
HEADPHONE
BASS
TREBLE
BALANCE
VOLUME
LOUDNESS
TUNER
PHONO
CD/TV
ALL DC-VOLTAGES ARE MEASURED WITH :
- VOLUME MIN.
- TONE AND BALANCE IN MID POSITION
- POSITION TAPE
ALL AC-VOLTAGES ARE MEASURED WITH :
- VOLUME MAX.
- TONE AND BALANCE IN MID POSITION
- LOUDNESS OFF
- LOAD RESISTOR 8Ω 120W
- INPUT 1000Hz
...V DC
...V AC
ELECTRONIC VOLTMETER
N3M4558PP
μPC1225H
BC547B
BC557
BC558B
TLG123A/E
1N4148
BDT95A
BDT96A
BD645
BL02-700
1N4002G

SERVICING HINTS

Mechanical part

1. Service position

— Remove the push-button rod of the mains switch (snap-in fixation).
— Remove the 2 screws in the upper and lower sides of the front panel.
— Remove the 6 screws of the PCB.
— Put the set on its side.
— It is now possible to put the PCB with the front and the cooling plates/heat sinks in the service position.

Note:
Beware of the supply voltage on the cooling plates/heat sinks when switching on the mains voltage.

2. Demounting the front panel (item 433)

— Remove the push-button rods of the switches (snap-in fixation).
— Remove the rotary knobs.
— Remove the nuts of the rotary potentiometers.
— Remove the led PCB with led holder (snap-in fixation).
— Remove the 2 screws in the upper and lower sides of the front panel plus 1 screw in the middle of the inner side.

3. Demounting the slide knob (item 419)

— Remove the seal projections. Spare projections for remounting have been applied.
— Slide knob and guide post can now be removed by pushing the projection slightly outwards.

4. Demounting the sub-front (item 434), window (item 422 plate (item 421)

— The parts with item numbers 434, 422, 421 can be directly replaced by removing the seal projections.

Electrical part

1. Check of IC and power transistors

— Unsolder pins 11 and 12 on 7501 (7502).
— Unsolder negative feedback 3541 (3542) from emitter 7507 (7508) and connect to pin 11 7501 (7502).
— It is now possible to measure output transistors 7505, 7507 (7506, 7508) for shorts or interruptions by means of a millivoltmeter.
— At correct functioning of the IC, the direct voltage at pin 3 is +29 V, at pin 11 -0.02 V and at pin 12 +1.2 V. If the direct voltage at pin 3 is lacking, the safety circuit shall be checked.

2. Check of safety circuit

— Unsolder resistor 3567 (3568).
— The direct voltage at the collector should now be +29 V.
If this voltage is present, transistor 7515 (7514) shall also be checked.

ELECTRICAL MEASUREMENTS

Measuring equipment required

— Universal meter.
— AC millivoltmeter.
— LF generator.
— Distortion meter.
— Oscilloscope.

General conditions

The measurements below relate to the left-hand channel.
The test points for the right-hand channel are given between brackets.
The following general conditions apply to the undermentioned electrical measurements, unless stated otherwise.
— Mains voltage 220 V ± 2%.
— Ambient temperature 15 to 35° C.
— Apply load resistors of 8 Ω 1% 120 W across the left and right outputs of system A.
— Tone and balance control in mid-position.
— Perform measurements on system A.
— Switchs „Mute", „Mono", „High", „Low" and „Loudness", if present, in OFF position.
— Set should be encased.

Offset voltage at the loudspeaker output

Without input signal the maximum permissible direct voltage at the output is ⩽ 300 mV.

SUPPLY VOLTAGES

SK POSITION	SIGNAL	VOLUME	POWER SUPPLY	RIPPLE		QUIESCENT CURRENT	ADJUSTING	OUTPUT
Tape SK45		Min.	+1 +36,5 V±1,2 V −1 -36,5 V±1,2 V	214 mVtt				
	BU5 (BU6) 1 kHz	Max.	+1 +28 V±1,2 V −1 -28 V±1,2 V					BU18-20 (BU19-21) 16 V 32 W
			+3 +7,5 V±0,4 V	17 mVtt				7-BU22
	No signal	Min.				45 mA ≈15 mV	3513 (3514)	3543 (3544)

OUTPUT POWER AND HARMONIC DISTORTION (THD)

SK POSITION	SIGNAL	INPUT	OUTPUT	FTC 14,14 V 25 W	IEC 15,49 V 30 W	DIN 16 V 32 W
Tape SK25	Via 1 kΩ 40 Hz	BU5 (BU6)	BU18-20 (BU19-21)	≤ 0,09%		
	63 Hz				≤ 0,7%	
	1 kHz			≤ 0,01%	≤ 0,3%	≤ 0,7%
	12,5 kHz				≤ 0,7%	
	20 kHz			≤ 0,09%		

LF SENSITIVITY

SK POSITION	SIGNAL	INPUT	TERMINATING RESISTOR	VOLUME	BASS	TREBLE	LOUDNESS	OUTPUT
Tuner CD/TV Tape SK45	1 kHz 130-180 mV	BU5 (BU6)		MAX				BU18-20 (BU19-21) 14,14 V 25 W
Phono SK42	1 kHz 2,3-2,8 mV	BU11 (BU12)		MAX				BU18-20 (BU19-21) 14,14 V 25 W

SK POSITION	SIGNAL	INPUT	TERMINATING RESISTOR	VOLUME	BASS	TREBLE	LOUDNESS	OUTPUT
Tape SK45	Via 1 kΩ 1 kHz	BU5 (BU6)		MAX	MID	MID	OFF	BU18-20 (BU19-21) 0,775 V ≈ 0 dB
	40 Hz			MAX	MID	MID	OFF	+ 12 dB ± 2 dB
				MIN	MID	MID	OFF	−11 dB ± 2 dB
				-40 dB	MID	MID	ON	+ 10 dB ± 2 dB
	10 kHz			MAX	MID	MAX	OFF	+ 10 dB ± 2 dB
					MID	MIN	OFF	−10 dB ± 2 dB
				-40 dB	MID	MID	ON	+ 3,5 dB ± 1 dB

P.U. AMPLIFIER (RIAA)

Phono SK42	Via 1 kΩ 1 kHz	BU11 (BU12)	22 kΩ BU1 (BU2)	MAX	MID	MID	OFF	BU18-20 (BU19-21) 0,775 V ≈ 0 dB
	20 Hz							BU1 (BU2) 150 mV + 16,3 dB ± 1 dB
	40 Hz							+ 16,8 dB ± 1 dB
	250 Hz							+ 6,8 dB ± 1 dB
	1 kHz							0 dB ± 1 dB
	10 kHz							−13,7 dB ± 1 dB
	20 kHz							−19,6 dB ± 1 dB

CROSS-OVER CHANNELS

SK POSITION	OUTPUT	INPUT	TERMINATING RESISTOR	VOLUME	BASS	TREBLE	LOUDNESS	OUTPUT
Tuner CD/TV	Via 22 kΩ// 250 pF 500 mV	BU5		Adjusting				BU18-20 14,14 V 25 W
Tape SK45	250 Hz							BU19-21 ⩾ 35 dB
	1 kHz							BU19-21 ⩾ 50 dB
	10 kHz							BU19-21 ⩾ 35 dB
Phono SK42	Via 22 kΩ 5 mV	BU11		Adjusting				BU18-20 14,14 V 25 W
	250 Hz							BU19-21 ⩾ 35 dB
	1 kHz							BU12-21 ⩾ 50 dB
	10 khz							BU19-21 ⩾ 35 dB

INPUTS

Tape SK45	Via 1 kΩ 1 kHz	BU5 (BU6)		MAX				BU18-20 (BU19-21) 14,14 V 25 W
			Tuner BU9 (BU10) 22 kΩ					BU9 (BU10) ⩾ 60 dB
			CD/TV BU13 (BU14) 22 kΩ					BU13 (BU14) ⩾ 60 dB
	Via 1 kΩ 1 kHz		Phono BU11 (BU12) 2k2 Ω					BU11 (BU12) ⩾ 60 dB
Phono SK42	Via 2k2 Ω 1 kHz	BU11 (BU12)						BU18-20 (BU19-21) 14,14 V 25 W
			Tuner BU9 (BU10) 22 kΩ					BU9 (BU10) ⩾ 60 dB
			CD/TV BU13 (BU14) 22 kΩ					BU13 (BU14) ⩾ 60 dB
			Tape BU5 (BU6) 22 kΩ					BU5 (BU6) ⩾ 60 dB

LF CHARACTERISTIC

Tone control

Tape SK45	Via 1 kΩ 1 kHz	BU5 (BU6)		MAX	MID	MID	OFF	BU18-20 (BU19-21) 0,775 V ≈ 0 dB
	40 Hz			MAX	MID	MID	OFF	+ 12 dB ± 2 dB
				MIN	MID	MID	OFF	−11 dB ± 2 dB
				-40 dB	MID	MID	ON	+ 10 dB ± 2 dB
	10 kHz			MAX	MID	MAX	OFF	+ 10 dB ± 2 dB
					MID	MIN	OFF	−10 dB ± 2 dB
				-40 dB	MID	MID	ON	+ 3,5 dB ± 1 dB

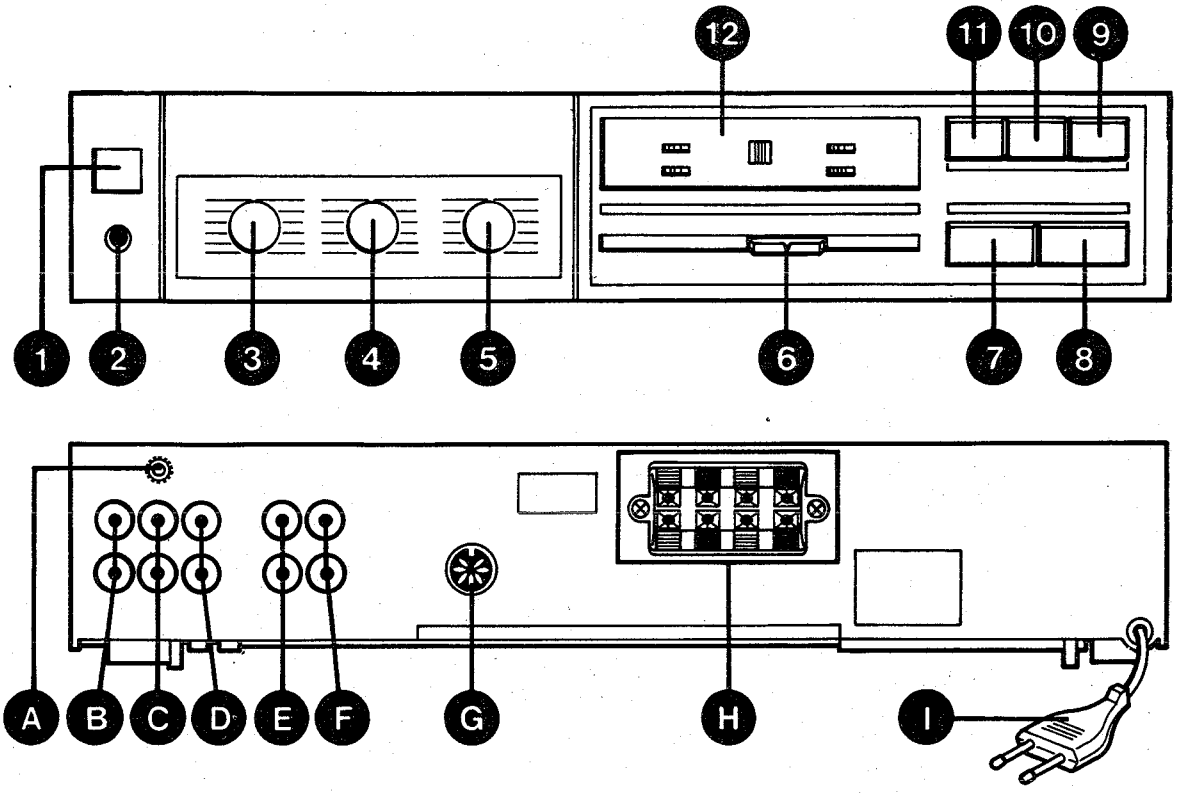


Fig. 1

CONTROLS, CONNECTIONS, ETC.

Fig. 1

1	on/off switch	SK1
2	socket for stereo headphone	BU17
3	bass control First press knob to release it to the out position. Adjust control by rotating, then press knob again to lock it back in.	3523 a/b
4	treble control, read remark bass control	3524 a/b
5	balance control, read remark bass control. To adjust the level of the right and left channels.	3531 a/b
6	volume control	3437 a/b
7	tape/monitor switch	SK45
8	loudness switch Compensates for human hearing characteristics by boosting bass and treble response at low volume levels to achieve a more pleasing tonal balance.	SK49
9	compact disc selector switch	SK41
10	record player selector switch	SK42
11	tuner selector switch	SK43
12	display with indicators	6409÷6414

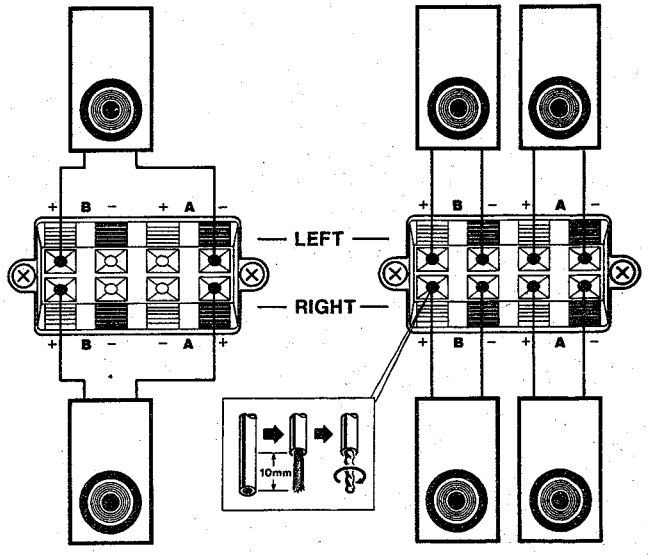


Fig. 2

Fig. 2

A	phono ground terminal	—
B	input sockets for compact disc player	BU13-14
C	input sockets for MD record player	BU11-12
D	input sockets for tuner	BU9-10
E	input sockets for recorder	BU5-6
F	output sockets for recorder	BU1-2
G	supply-out/line-in socket	BU22
H	terminals for loudspeakers, set A and B.	BU18÷21
I	mains lead.	—

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			GEHAEUSE UND BEDIENTEILE :	
3				
4	404		KNOPF FUER NETZSCHALTER	998 130 9
5	406		PLASTIKSTANGE DISC	998 131 7
6	407		PLASTIKSTANGE PHONO-EINGANG	998 132 5
7	408		PLASTIKSTANGE TUNER EINGANG	998 133 3
8	412		KNOPF FUER DREHPOTI	998 134 1
9	413		KNOPF FUER D.SC.PHONO,TUNER	998 135 8
10	414,SK41-5		TASTENSATZ 4-FACH	998 136 6
11	415		KNOPF FUER TONBAND,LOUDNESS	998 146 5
12	416 SK49		SCHALTER,LOUDNESS	998 137 4
13	418 SK1		NETZSCHALTER	998 138 2
14	419		KNOPF FUER SCHIEBEREGLER	998 139 0
15	422		KLARSICHTSCHEIBE	998 140 8
16	424		PLASTIKSTANGE,TONBAND	998 141 6
17	426		PLASTIKSTANGE,LOUDNESS	998 142 4
18	433		FRONTBLENDE	998 144 0
19	501	C	GEHAEUSE-OBERTEIL	998 145 7
20				
21			ELEKTRISCHE TEILE :	
22				
23	1501,1502		SICHERUNG 3,15 AT	998 154 9
24	1503		THERMO-SICHERUNG	998 155 6
25	1504-1506		SICHERUNG 160 MAT	998 156 4
26	3437		SCHIEBEREGLER 2X100K	998 150 7
27	3523,3524		DREHPOTI 2X30K	998 151 5
28	3531		DREHPOTI 220K	998 152 3
29	3543,3544		WIDERSTAND 0,33 OHM 3 WATT	998 157 2
30	5001		NETZTRAFO	998 153 1
31	6409-6414		LED CQV 15-3,GRUEN (RUND)	957 541 6
32	6501		GLEICHRICHTER KBL 02-7000	998 149 9
33	6503-6506		DIODE 1 N 4148	175 540 4
34	6508,6509		DIODE 1 N 4002	921 523 7
35	6510,6511		ZENERDIODE BZX 79 C 16	176 836 5
36	6512		Z-DIODE BZY 97 C 9 V 1	966 901 1
37	6516		ZENERDIODE BZY 85 C 12	176 808 4
38	6519-6527		DIODE 1 N 4148	175 540 4
39	6528		ZENERDIODE BZX 79 C 15	176 843 1
40	7401		IC NJM 4558 D	950 628 8
41	7501,7502		IC UPC 1225 H	985 453 0
42	7503,7504		TRANSISTOR BC 546 B	923 701 7
			ERSETZT ET-NR. 175 954 7	
43	7505,7506		TRANSISTOR BDT 95 A	998 147 3
44	7507,7508		TRANSISTOR BDT 96 A	998 148 1
45	7509		TRANSISTOR BC 556	945 328 3
			ERSETZT ET-NR. 175 955 4	
46	7510		TRANSISTOR BC 546 B	923 701 7
			ERSETZT ET-NR. 927 111 5	
47	7513		TRANSISTOR BD 645	955 935 2
48	7514,7515		TRANSISTOR BC 556	945 328 3
			ERSETZT ET-NR. 923 700 9	
49	7601		TRANSISTOR BC 556	945 328 3
			ERSETZT ET-NR. 175 955 4	
50				
51			ALLE ANDEREN ERSATZTEILE SIND	
52			BEI BEDARF IM KLARTEXT MIT POS.	
53			ANGABE UEBER KD-TB ZU BESTELLEN.	

ENDE